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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/605,736 | 10/22/2003 | Robin L Wang | 19441-0011 | 2735 |

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| EXAMINER |
|---|
| WARTALOWICZ, PAUL A |

| ART UNIT | PAPER NUMBER |
|---|---|
| 1754 | |

DATE MAILED: 08/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| Advisory Action Before the Filing of an Appeal Brief | Application No. 10/605,736 | Applicant(s) WANG ET AL. | |
|---|---|---|---|
| | Examiner Paul A. Wartalowicz | Art Unit 1754 | |

*--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

THE REPLY FILED 08 August 2006 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:
   a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
   b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

   Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☒ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
   (a) ☒ They raise new issues that would require further consideration and/or search (see NOTE below);
   (b) ☐ They raise the issue of new matter (see NOTE below);
   (c) ☒ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
   (d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

   NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).
4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): _____.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☒ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
   The status of the claim(s) is (or will be) as follows:
   Claim(s) allowed: _____.
   Claim(s) objected to: _____.
   Claim(s) rejected: *1-15*.
   Claim(s) withdrawn from consideration: *16-27*.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: See attached.
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08 or PTO-1449) Paper No(s). _____
13. ☐ Other: _____.

Paul Wartalowicz
8/16/06

Colleen P. Cooke
COLLEEN P. COOKE
PRIMARY EXAMINER

**ADVISORY ACTION**

Continuation of 11.

Amendments

The amendment is not entered for the following reasons. The amendment does not put the case in better condition for appeal or clarify the invention. The amendment would necessitate a new search and most likely a new ground of rejection.

Rejection Under 35 USC 112

The 35 USC 112 rejection of claim 8 have been withdrawn.

The 35 USC 112 rejections of claims 1 and 15 have not been withdrawn.

The proposed amendment does not clear up the issue of the process being "essentially free of water" or "essentially without the addition of steam or water". These recitations render claims 1 and 15 indefinite because it is unclear whether there is no steam added or present in the process, or if *essentially* no steam is added or present in the process which would allow for small amounts of steam to be present or added in the process. For the purposes of further examination, the recitation is interpreted to define the claim in that small amounts of steam are present in the process of the invention.

Rejection Under 35 USC 102

The rejections under Isogaya et al. of claims 1-3, 6, 8, 9, 13, 14, and 15 have been withdrawn.

Rejection Under 35 USC 103

Applicant's arguments filed August 8, 2006 have been fully considered but they are not persuasive.

Applicant argues that there is no motivation to combine Isogaya et al. and Voeste. Applicant states that Isogaya discloses that "if the amount of steam is insufficient, carbon is easily deposited" during partial combustion of heavy hydrocarbons. Applicant also argues that a skilled artisan would not go against the teachings of Isogaya by combining Isogaya with Voeste. Applicant states that Isogaya teaches contacting the residue with an oxidation catalyst after first being contacted with a steam reforming catalyst and that Voeste teaches hydrocarbon may optionally be contacted with an oxidation catalyst prior to being contacted with a steam reforming catalyst. This argument is not persuasive for the following reasons.

Isogaya et al. teach that the steam/carbon ratio is 0.3, and that the reason for this is that a high ratio is uneconomical (col. 7, lines 41-52). Isogaya et al. also teach that it is preferable to yield a resultant gas high having a high concentration carbon monoxide (col. 3, lines 35-38). Voeste et al. teach that the high concentration of carbon monoxide is because no water is added to the process (col. 4, lines 5-10). This is the motivation for combining Isogaya et al. and Voeste. Both references teach a preference for a

resultant gas having a high concentration of carbon monoxide. As to the argument that the prior art teach different technologies teaching away each other, Voeste also teach that if needed, it is possible to add a small amount of water vapor to the process but not in excess of the ratio of steam/carbon of 0.2 (col. 2, lines 10-18). This ratio is close to Isogaya et al. This combined teaching meets the limitation of essentially free of steam or water.

Applicant argues that the combination of Isogaya et al., Voeste, and Rudy would not be obvious and that there is no motivation to combine. Applicant also argues that a skilled artisan would not combine the above references because the processes are incompatible with each other and that some evidence of this is that Rudy teaches that three-way conversion catalysts are polyfuctional and are capable of substantially simultaneously catalyzing both oxidation and reduction reactions. This argument is not persuasive for the following reasons.

Rudy is relied upon to teach a material for use in the process of Isogaya et al. The fact that the catalyst of Rudy is capable of simultaneously catalyzing both oxidation and reduction reactions does exclude that a teaching from Rudy is compatible with Isogaya et al. Rudy is not relied upon to teach the order of oxidation and reforming in the process. Both Isogaya et al. and Rudy are drawn to a process of oxidation of hydrocarbons; this is some evidence that Rudy and Isogaya et al. are not drawn to different technologies. Rudy teaches that an activated alumina support is preferable because gas can flow through a catalyst layer and into the undercoat to increase

contact of gas to be treated (col. 8, lines 20-30). This teaching is useful for Isogaya et al. for the processing of a hydrocarbon stream. The combination of Rudy and Isogaya et al. is obvious for the above reasons.

Obvious-Type Double Patenting

The Obvious-Type Double Patenting Rejection submitted in Office Action dated June 8, 2006 has been withdrawn in view of the Terminal Disclaimer filed August 8, 2006.